Curriculum Vitae

KAMALDEEP KAUR

Objective

To excel in the activities involved and to contribute to the growth of the organization by the effective application of all skills and knowledge acquired over time and giving in the best of my abilities to the task assigned.

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| **Personal Profile** |  |
| Name: | Kamaldeep Kaur |
| Father’s Name: | S. Daljit Singh |
| Sex: | Female |
| Date of Birth: | Aug 08, 1980 |
| Language: | English, Punjabi, Hindi |
| Employed in Institute: | Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib |
| Department: | Electronics and Communication |
| Phone: | 9814010211 |
| E-mail: | [kamaldeepkaur272@gmail.com](mailto:kamaldeepkaur272@gmail.com), kamaldeep.kaur@bbsbec.ac.in |

**Education Background**

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| --- | --- | --- | --- |
| **Standard** | **Passing Year** | **Education Institution** | **Marks** |
| Matriculation | 1996 | PSEB, MOHALI | 82% |
| Diploma in Electronics and Communication Engineering | 1999 | PSBTE & IT, Chandigarh | 71% |
| Higher Secondary | 2000 | PSEB, MOHALI | 71% |
| Bachelor of Technology (Electronics & Communication Engineering) | 2003 | PTU, Jalandhar | 75% |
| Master of Engineering | 2005 | Punjab University, Chandigarh | 71% |

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| **Technical/ Software Skills** |  |
| Programming Languages: | LabView, MATLAB, OrCAD, Proteus Simulation Software, AVR Studio  8085 Assembly Level Programming  8051 Assembly Level Programming |
| Computer Skills | Microsoft Office, spreadsheets, PowerPoint, Social media skills |
| Operating System: | Windows |

**Work Experience**: 14 years 3 months in BBSBEC Fatehgarh Sahib

* Joining as a Lecturer on 1st August 2005
* Regularized in July 2007
* Presently working as Assistant Professor (Senior Scale)

**Area of Interest:** Communication systems Digital systems and Microcontroller and Embedded systems

**Expertise in Courses: For UG and PG (Part-time and Regular Students)**

1)Digital Electronics

2)Microcontroller and Embedded systems

3) Analog Communication Systems

4)Digital Communication Systems

5)Linear Integrated Circuits

6)Optical Fiber Communication

7)Electronic System Design

8) Information Theory and Coding

9) Computer Networks

10) Human resource management

11)Basics of Electronics Engineering

12)Microprocessors and Microcontrollers

13)Engineering Economics and Industrial Management.

14) Linear control System.

15) VLSI

**Published Papers in International Journals:**

1) Kaur D, Kaur J, Kaur K “Digital Image Watermarking: Challenges and Approach for a Robust Algorithm”, International Journal of Electronics Engineering (IJEE), Vol 1, No.1, pp.95-97, June 2009, ISSN:0973-7383(Deeptiprit Kaur, Jaspreet Kaur, Kamaldeep Kaur)

2) Kaur K, Gupta N, Adhikary K "An Automatic method to inspect Discontinuities in textile" International Journal of Computer Science Engineering and Technology Vol 1, Issue 8, Sep 2011, pp- 496-498, ISSN:2231-0711 (Kamaldeep Kaur, Neeru Gupta, Kaushik Adhikary)

3) Kaur K, Goyal D, Gupta N, "A Hybrid model to identify flaws in textile", International Journal of Modern Engineering Research (IJMER) Vol 2, Issue 4, July-Aug 2012, pp-2181-2184, ISSN: 2249-6645 (Kamaldeep Kaur, Deepal Goyal, Neeru Gupta)

4) Kumar H, Kaur K,2013” Heart variability Analysis by using non-linear techniques and their comparison” International Journal of Computer Applications Vol 65-Issue 20, March 2013, pp 33-36, ISSN:0975-8887(Harish Kumar, Kamaldeep Kaur)

5) Sood B. and Kaur, K, 2013 "Optimization of mesh reconstruction using delauny and ball-pivoting algorithm" International Journal of Research in Engineering & Advanced Technology, Vol 1 Issue 2 April –May 2013, pp.1-7, ISSN 2320-8791(Bharti Sood, Kamaldeep Kaur)

6) Sood B. and Kaur, K, 2013 "Surface reconstruction and Time calculation using Crust Algorthim" International Journal of Computer Science and Engineering Technology, Vol 3 no 7 july 2012, pp.263 ISSN 2229-3345

7) Singh H. and Kaur K, 2014, "Flash Drive Communication Using Embedded System". International journal of engineering and computer science, Vol 3 Issue 2 Feb 2014 pp-3947-3950, ISSN: 2319-7242 (Harpreet Singh, Kamaldeep Kaur)

8) Singh H. and Kaur K, 2014,” Design Module for Data Transfer Between Bluetooth Device and Flash Drive Using USB Host Controller” International Journal of Advance Engineering and Research Development (IJAERD) Vol 1, Issue 5, May 2014, e-ISSN: 2348 - 4470 print-ISSN:2348-6406. (Harpreet Singh, Kamaldeep Kaur)

9) Bansal U, Kaur K, "1.6 Tbps High speed long reach DWDM system by incorporating Modified Duobinary Modulation Scheme, "International Journal of Current engineering and technology, Vol 4, Issue 6, pp.4047-4051 Dec 2014 ISSN 2347-5161(Urvashi, Kamaldeep Kaur)

10) Bansal U, Kaur K,” Capacity enhancement of DWDM system using EDFA and DCF with narrow channel spacing” International Journal of Applied Sciences and Engineering Research Vol 3, Issue 5, 2014 ISSN 2277 – 9442(Urvashi, Kamaldeep Kaur)

11) Bansal U, Kaur K, Chaudhary S, "Role of Laser Linewidth in high-speed DWDM system by incorporating Duobinary Modulation Scheme" International Journal of Computer Applications (0975-8887), Vol 109, Issue 15, pp.30-32 Jan 2015(Urvashi, Kamaldeep Kaur, Chaudhary Sushank)

12) Kaur Y, Kaur k, "Performance of STBC based Time-Frequency Training(TFT) OFDM and SC-FDMA with Adaptive Modulation" International Journal of Engineering Development and Research, Vol 3, Issue 3, July 2015, ISSN:2321-9939 (Yasmeen Kaur, Kamaldeep Kaur)

13) Kaur M, Kaur K, 2016,” Face Recognition and Signature verification with neural network using GABOR wavelet and discrete wavelet transform” International Journal of Engineering Development and Research, Vol 4, Issue 2, May 2016, pp-605-609, ISSN:2321-9939, (Manpreet Kaur, Kamaldeep Kaur)

14) “Analysis of Wavelet Le Gall 5/3 transform in Image Watermarking”, International Journal of Recent Trends in Engineering (IJRTE), Vol 2, No. 4, pp.224-227, Nov 2009 ISSN 1797-9617, Issue on Computer Science - Review Papers (Navjeet Kaur, Kamaldeep Kaur)

15) “Design of genetic algorithm-based m/c and its operator in VHDL”, International Journal of computer engineering, page no 59-61.

16) Sood B, Kaur K "A monitoring approach for surface reconstruction from 3d point cloud" International journal computer technology and applications, Vol 3(1),277-282, Jan-Feb 2012 ISSN-2229-6093

17) Ragini, Kaur K “Implementation and analysis of 2 Tbps MDRZ DWDM system at ultranarrow channel spacing” International journal of engineering development and research Vol 3, Issue 3, ISSN:2321-9939,22 July 2015

**Published Papers in International Conferences:**

1) "Implementing QOS For VOIP Traffic", International Conference on Wireless Networks And Embedded Systems (WECON-2008) on 18-19 October 2008 organized by Chitkara Institute of Engineering and Technology, Rajpura(Amarpal Singh, Kamaldeep Kaur, Raminder Singh Uppal)

2) "Downlink Power Control in CDMA", International Conference on Wireless Networks and Embedded Systems (WECON-2008) on 18-19 October 2008 organized by Chitkara Institute of Engineering and Technology, Rajpura (Ruchika Narang, Kamaldeep Kaur, Raminder Singh Uppal)

3) "Analysis Based on Information Theory Tests", International Conference On Wireless Networks And Embedded Systems (WECON-2008) on 18-19 October 2008 organized by Chitkara Institute Of Engineering and Technology, Rajpura(Ankur Singhal, KamaldeepKaur,Raminder Singh Uppal)

4) "DMA Controller with BIST Capability", International Conference on Wireless Networks and Embedded Systems (WECON-2008) on 18-19 October 2008 organized by Chitkara Institute of Engineering and Technology, Rajpura (Mandeep Singh, Balwinder Singh, Kamaldeep Kaur, Raminder Singh Uppal)

5) “Design of genetic algorithms based machine in VHDL, International Conference on Downtrend Challenges in IT on 22nd  May 2009 organized by Punjab College of Technical Education, Ludhiana.

6) "QAM Demodulation using Joint Phase Carrier Recovery Method", International Conference on Emerging Trends in Electronics and Communications (ICETEC-2009) on 11 Sep 2009 organized by Indo Global College of Engineering, Abhipur, Mohali. (Meenu Arora and Kamaldeep Kaur)

7) “Adaptive Noise Cancellation Using LMS and NLMS “International conference on ECO-Sensitive developments in Science and Technology ESDST-2017 on 20-21 Jan 2017 in association with department of science and technology and MRSPTU Bathinda (Priya Sood, Kamaldeep Kaur, Sonia)

8) “Comparison of Wavelet CDF 9/7 And Lifting Wavelet Transform in Image Watermarking”, International Conference on Wireless Networks and Embedded Systems WECON on 23 -24 Oct 2009 organized by Chitkara Institute of Engineering and Technology, Rajpura.

9) “Delaunay and crust algorithm-based efficiency comparison from 3D point cloud” 2nd international conference on computer science and IT applications, 6 Nov 2011, New Delhi.

10) “Design and implementation of S/W Defined Radio for IT applications” 2nd International Conference on innovative practices in management and information technology for excellence at Maharaga Agrasen Institute of management and technology, Jagadhri.

11)”Future Trends In Fiber Optic Communication” International Conference in Electronics and communications renewable energy and IoTs:Vision 2040 at Engineers Bhavan Sector 19 A Chandigarh on 7-8 september 2019.(Happy, jagriti,kamaldeep kaur)

12) “Design Of Rectangular Microstrip Patch Antenna”International Conference in Electronics and communications renewable energy and IoTs:Vision 2040 at Engineers Bhavan Sector 19 A Chandigarh on 7-8 september 2019 (yadwinder, kamaldeep kaur)**Third prize for best paper in Technical session.**

**Published Papers in National Conferences\Seminars**

1) "Multiple Access Technologies for next-generation mobile networks", National Conference on exploring the latest technological trends on 25th -26th November 2005, organized by Electronics and Electrical Engineering. Department BBSBEC, Fatehgarh Sahib.

2) “Wireless Intelligent Networks”, National Conference on exploring the latest technological trends on 25th -26th November 2005, organized by Electronics and Electrical Engineering. Department BBSBEC, Fatehgarh Sahib.

3)"Heralding A New Future"- Nanotechnology, National conference on impact of science and technology and mankind (ISTNEM-2006) on 27-28 Jan 2006 organized by Applied Sciences Department BBSBEC, Fatehgarh Sahib.

4) "Wavelength division multiplexing", National Conference on Innovations 2007 on 6th-7th April 2007, organized by Electronics and Electrical Engineering. Department BBSBEC, Fatehgarh Sahib.

5) “Smart Antenna”, National Conference on Innovations 2007 on 6th-7th April 2007, organized by Electronics and Electrical Engineering. Department BBSBEC, Fatehgarh Sahib

6) "Electromagnetic Radiation and Human Health": A Review of Sources and Effects, National Conference on technology and environment on 22-23 February 2008 organized by ISTE Chapters and Aeronautical Society of India Chandigarh branch at IEET Baddi

7) "Review of Modern Block Ciphers", National Conference on Advancements in Computer Engineering (ACE-08) on 3-4 April 2008, organized by Department of Computer Sciences and Engineering and Information Technology BBSBEC, Fatehgarh Sahib.

8) “Modern Cipher Techniques: Analysis with Cryptol”, Seminar on New Horizons in Science and Technology: Challenges Options on 22-23 May 2008 organized by M.M Engineering College, Mulana Ambala.

9) "Downlink Power Control in CDMA" AICTE Sponsored National Seminar on Emerging Trends in Software Engineering on 5-6 September 2008 organized by N.C. College of Engineering, ISRANA.

10) "ICI Cancellation for OFDM Systems", National Conference on Emerging Trends in Communication (ETC-2K9) on 20-21 February 2009 organized by Department. Of Electronics and Communication Engineering, SvietBanur.

11) "Implementation of shortest routing for network topology using Matlab", National Conference on Advances in computer networks and information technology on 24-25 March 2009 organized by Department. Of Computer Science and Engineering Guru Jambheshwar University of Science and Technology Hisar.

12) Review paper on "DWDM System using different modulation formats and dispersion compensation schemes," National Conference on advances in electrical and electronics communication engineering AEECE-2015 on 20-21 Feb 2015 organized by Department. Of Electronics/Electrical Engineering department, BBSBEC FGS.

13) Overview of Adaptive Modulation Schemes," National Conference on Advances in Electrical and Electronics Communication Engineering AEECE-2015 on 20-21 Feb 2015 organized by Department. of Electronics/Electrical Engineering department, BBSBEC FGS.

14) “Supervisory Control and Data Acquisition System (SCADA)”, National Conference NEEC-2006 on 11th August 2006 organized by Guru Nanak Dev Engineering College, Ludhiana.

15) “Cryptanalysis of Modern Block Ciphers Using Information Theory,’ 1st National Conference on Emerging Trends in Information Technology NCEIT-2008 on September 5th -6th, 2008 Organized by Department of Computer Science & Information Technology, Institute of Engineering & Emerging Technologies, Baddi.

16) “Data Transfer Efficiency Enhancement and effect of blocking probability,” All India conference on recent emergences and scope of electronics architecture 2010 on 19-20 Feb 2010 in Haryana Engineering College, Jagadhri

17) “Software Define Radio” National Conference on information security and networks organized by Department of Computer Applications held on 19 june 2009 at Chitkara Institute of Engineering & Technology, Punjab.

**18) “**Wireless sensor network” All India Seminar on Recent Innovations in Wireless Communication and Networking organized by The Institution of Engineers (India) in association with BBSBEC Fatehgarh Sahib on 23-24 Feb 2017(Karanvir Singh Bansal, Neha Chaudhary, Ranteg Singh Thind, Kamaldeep Kaur).

19) “Wireless Communication Technology: WiMAX” All India Seminar on Recent Innovations in Wireless Communication and Networking organized by The Institution of Engineers (India) in association with BBSBEC Fatehgarh Sahib on 23-24 Feb 2017 (Jashandeep Kaur, Parminder Kaur,Namrata, Kamaldeep Kaur).

20)Wireless hand glove operated modeAll India Seminar on Recent Innovations in Wireless Communication and Networking organized by The Institution of Engineers (India) in association with BBSBEC Fatehgarh Sahib on 23-24 Feb 2017 (Karamjot Singh, Kamaldeep Kaur, Harshpreet Singh).

21) "Securing Images Through Watermarking” Zonal Seminar on 3G Networking optimization and emerging communication technologies (3G NOECT-2007) on 24-25 Aug 2007 organised by The Institution of Electronics and Telecommunication Engineers Chandigarh Center. The oral presentation was presented on "Securing Images Through Watermarking.

**Short Term Courses Attended:**

Education is a never-ending process. Through continuing education, a teacher can constantly improve their skills and become more proficient at their jobs. Going beyond the textbook and attending workshops and ongoing education courses are important in order to become a great teacher. The aim of the National Institute of Technical Teachers’ Training and Research (NITTTR) is to provide technical training to faculty members of polytechnics and degree engineering colleges. The institutes offer short and long-term courses — the short courses can span five days or a couple of weeks. Short term courses attended at NITTTR and other colleges are listed below.

1)STC on Microcontroller and their interfacing from 29 -02 June 2006

2) STC on Network Security from 12 -16 May 2008.

3) STC on New Trends in Mobile Communication at Rayat Institute of Engineering and Information Technology, Nawanshahr from 23-27 June 2008

4) STC on Lean Manufacturing Today and Tomorrow at BBSBEC from 8-19 Dec 2008.

5) STC on VLSI Design from 3 -7 August 2009.

6) STC on AICTE sponsored FPGA Based Digital System Design from 28 April -2 May 2014

7) STC on Hands on experience on LABVIEW from 25-29 May 2015

8) STC on Cloud computing through ICT conducted by the Computer Science Department, BBSBEC in collaboration with NITTTR. From 5-9 Dec 2016

9) STC on AICTE sponsored Cloud computing through NITTTR remote centre at BBSBEC from 28 April -2 May 2014

10) STC on Faculty awareness camp on entrepreneurship at RIEIT, NAWANSHAHR from 28 -30 June 2008

**Faculty Development Courses/Workshop Attended:**

1) FDP on Technical Education –Present Scenario and Future Challenges on18 May 2006

2) FDP on Emotional Intelligence for Org. excellence from 12-14 July 2010 at BBSBEC FGS

3) FDP on Robotics from 05-07 July 2010 at BBSBEC FGS

4) FDP on Human Values from 16-17 July 2010 at BBSBEC FGS

5) FDP on Applications of Lab View in Engineering from 21-23 July 2010 at BBSBEC FGS

6) FDP on Biomedical Signal Processing, Imaging and Engineering Application from 23-24 July 2010 at BBSBEC FGS

7) FDP on Secrets of Guru from 14-16 Dec 2010 at BBSBEC FGS conducted by Seed Beyond the Obvious.

8) FDP on Matlab and its Applications and Implementation of Wireless Networks on FPGA/CPLD from 2- 6 July 2012

9) FDP on Industrial Automation and Robotics 12-18 July 2012.

10)Teacher Orientation Programme on Human Values and Professional Ethics from 14-21 Dec 2012 at BBSBEC FGS

11)Workshop on LabVIEW applications in communication and signal processing under society of SeDISP from 15-17 Feb 2012

12) FDP on Achieving Excellence in Teaching and Learning: Synergic Actions at BBSBEC in collaboration with Bulls Eye, Chandigarh from 23-27 May 2016

13)FDP by the team TRINITI on experiential learning programme to groom skills that includes Team bonding and team building, Leadership skills, Stress Management, Decision-making skills, Effective Communication, Effective change management, Empathy and Managing Integration from 3-4 Jan 2017 at BBSBEC FGS.

14) FDP on Cyber Security and Big Data Analysis at BBSBEC FGS on 26 Feb-2 Mar 2018

15)Workshop on Mathematical Modelling using PetriNet and Optimization of Systems at BBSBEC on 20 Apr 2018

16) All India Workshop on Advanced Wireless Communication and its Implications at BBSBEC FGS on 10-14 Sep 2018

17) All India Seminar on Role of Embedded System in Wireless Sensor Networks at BBSBEC on 11-12 Oct 2018.

18) One day workshop on Linux by Teacher Learning Center, ICT at IIT Bombay at Baba Banda Singh Bahadur Engineering College on 23 August 2019.

**Webinar:**

1)Webinar on coping with covid : youth and mental health under IEEE STUDENT CHAPTER OF CSE DEPARTMENT on 29/7/2020

2) Webinar on block chain: Adoption trends and its impact in times of pandemic” organised by CSI Chapter” of CSE department on 6/8/2020

3.Webinar on opportunities for Artificial Intelligenceon 12 AUGUST 2020

4Remote Faculty Development Program (5 days)on "Moodle Learning Management system" organized by Department of Computer Science &Engg. (BBSBEC) in association with \*IIT Bombay Spoken Tutorial on 4- 8 MAY, 2020

52-Days Online Workshop - bootcamp for girl students on "Canva - Graphic designing Tool", under the aegis of BBSBEC ACM Student Chapter in collaboration with Girls x Tech organization organized by Department of Computer Science & Engineering on

6WEBINAR on (ALUMNI TALKS)Journey from BBSBEC to WIPRO on 10  September 2020 byDistinguished Alumni: Er. Amanpreet Kaur(DBA, Wipro Technologies, Canada)

7Webinar on “ Stress management & happiness in present ERA” organized by Guru Gobind Singh Study Circle-Unit of BBSBEC  on 2nd  Sep. 2020 (Wednesday) by DISTINGUISHED SPEAKER:  Dr.Sarabjeet Singh Renuka, Professor PAU, Ludhiana.

8 WEBINAR on: “Certification Talk on AMAZON (AWS) and ORACLE  &  How to become an Entrepreneur” organized by CSE department(ORACLE ACADEMY)ON 5/10/2020

9.One day Girls x Tech Branding & Designing Bootcamp ON 9THOCT

10.Webinar on “5G COMMUNICATION TECHNOLOGY EVOLUTION AND APPLICATIONS” organized by ECE DEPARTMENT ON 14 OCT 2020

11.WEBINAR ON "Role of Internet of Things (IoT) in Communication World"on 23 Oct. 2020 (Friday) organized by Department of ECE.

12. Webinar on Alumni Talks (Journey from BBSBEC to Walmart Labs, USA by Er. Arshpreet Singh Bhatti ) on Nov 4,2020 organised by CSE department.

13.Webinar on Towards 6G networks on 21 dec 2020organised by ECE department

**Thesis Supervised: (Full time and Part time Post -Graduates)**

1 Design and VLSI Implementation of Self-Tested DMA Controller (Mandeep Singh, 27/09/2008)

2 To provide efficient QoS for VoIP (Amarpal Singh, 29/03/2009)

3. Design and Development of Orthogonal Frequency Division Multiplexing (Monika Marjara).

4 Implementation of shortest routing in network topology using MATLAB (Nitu Rana 2/2/2010)

5 Performance of CDMA system in the worst case scenario (VandiniKharyal, 3/3/10)

6 Real-time algorithms for carrier recovery in 16- QAM receivers (Meenu Arora, 26/02/2011)

7 A hybrid approach to optimize mesh reconstruction using Delaunay and Ball pivoting algorithm (Bharti Sood,6/09/2013)

8 A Hybrid model to identify flaws in fabric (Neeru Gupta, 30/7/2013)

9 Heart rate variability analysis by using non-linear techniques and their comparison (Harish Kumar, 8/02/2014)

10 Design module for data transfer between Bluetooth device and flash drive using USB host controller (Harpreet Singh, 27/02/2015)

11Capacity enhancement of DWDM System to 1.6Tbps using EDFA and DCF with narrow channel spacing (Urvashi Bansal, 3/04/2015)

12 Performance of STBC based TFT OFDM and SC-FDMA with adaptive modulation (Yasmeen, 29/10/2015)

13 Face Recognition and Signature verification with neural network using GABOR wavelet and discrete wavelet transform (Manpreet Kaur, 26/08/2016)

14 Performance evaluation and analysis of 2 Tbps MDRZ with DWDM system at ultranarrow channel spacing (Ragini, 1/10/2015)

15 Design of Image Filters for image processing (Satinder Kaur)

16 Analysis of Image Watermarking Technique using different transforms (Navjeet Kaur)

**Thesis Evaluated as External Examiner:**

1 To enhance the performance of MANET by detecting black hole attack. (Harmandeep Kaur,1269117)

2 Design of low power consuming SRAM Cell using minimum transistors count FINFET Technology (Rajinder Singh,1316327, evaluated on 19/02/2018)

3 Implementation of IEEE Bus System with Optimum Placement of Phase Measurement Unit (PMUs) using PSAT Toolbox. (Sarabjeet Singh,1316328 evaluated on 24/09/18)

4 To reduce noise effects from scanned degraded document images using filters (Kuljeet Singh, 100496882623)

5 Digital image watermarking using Arnold Transformation and Private Key (Harjot Kaur,100496882619)

6 Genetic Algorithm based network lifetime enhancement in the clustered routing protocol of wireless sensor network (Stuti Bhandari,1168610)

7 Taxonomy of Electrocardiogram signals (Amandeep Singh Khanna,1168577)

8 Punjabi character recognition using Wavelet and Curvelet Techniques with SIFT Algorithm (Balwinder Singh,100496882613)

9 Video Watermarking using Genetic Algorithm (Savreen Kaur Deol,1269126)

10Mitigate the impact of DOS attacks by verifying packet structure (Shiv Kumar,100496880603)

11 Image restoration by using Hybrid filling in Technique (Gurpinder Kaur Sivia,1269114)

12 Design and Simulation of Fractal Metamaterial Antenna for Wireless Application (Chandni Mehta,1168587)

13 Multi-Focus Image Fusion in Transform Domain using Steerable Pyramids (Kiranjeet Kaur,1168596)

14 Simulation and Analysis of Cognitive Radio with Energy Detection Technique using Welch Periodogram (Vivek Kaushal,100496882635)

15 Image Compression with LM Algorithm using Neural Network (Mandeep Kaur,100496882624)

16 Energy Efficient Building using PLC and SCADA (Rosy Kaplesh,1269109)

17 Reactive and Proactive routing protocol performance investigation under increasing load conditions in WMN (Sajith Kumar, 1269124)

**B-tech Projects Guided:**

1 Automated guided vehicle

2 Microcontroller and optical fibre based embedded GSR monitoring and graphical display unit

3 Punching card-based security system

4 Digital water level controller cum protector

5 Intelligent CCTV camera based on image processing in Matlab

6 Mobile Controlled Hexabot

7 Automated Dam Control System

8 I2C protocol based Black Box for Automotive Industry.

9 Machine to Machine communication for petrol pumps.

10 Design and development of fibre optic transparency analysis system for tinted glass.

11 Ultrasonic Radar Distance Meter.

12 Electronic Component Tester.

13 Cell-based Voting machine.

14 Microcontroller based real-time embedded window glass cleaner.

15 Accelerometer based hand gesture controlled robot

16 Automatic Railway crossing system

17. Sun tracking solar panel using Arduino(sanjogita and Mandeep kaur 7thsem July to dec 2019)

**M-tech Projects Guided: (Regular & Part-time Students)**

1 PIR sensor based coma patient monitoring system using Matlab(2012).

2 Design and implementation of secure wireless data transfer using Matlab(2012, Gaganpreet Kaur, 100066882397)

3 Fuzzification using Neural Network (Rajni, 6120438560)

4 Fault detection in Wheatstone bridge-based transducer (Pooja Pathak,6120438557)

5 Speech-based home automation (Navpreet Kaur,6120438082)

6 Quality Analyzer using Matlab (Ishmeet Kaur,100066882403)

7 BER Performance Analyzer of different Equalizers (Sanjeev Kumar,1350592)

8 Speech Recognition System (Nazma,1350587)

9 Performance of high order QAM modulation schemes for wireless communication systems (Yasmeen,1302924)

**Paper with undergraduates:**

**1) “**Wireless sensor network” All India Seminar on Recent Innovations in Wireless Communication and Networking organized by The Institution of Engineers (India) in association with BBSBEC Fatehgarh Sahib on 23-24 Feb 2017(Karanvir Singh Bansal, Neha Chaudhary, Ranteg Singh Thind, Kamaldeep Kaur).

2) “Wireless Communication Technology: WiMAX” All India Seminar on Recent Innovations in Wireless Communication and Networking organized by The Institution of Engineers (India) in association with BBSBEC Fatehgarh Sahib on 23-24 Feb 2017 (Jashandeep Kaur, Parminder Kaur,Namrata, Kamaldeep Kaur).

3)Wireless hand glove operated modeAll India Seminar on Recent Innovations in Wireless Communication and Networking organized by The Institution of Engineers (India) in association with BBSBEC Fatehgarh Sahib on 23-24 Feb 2017 (Karamjot Singh, Kamaldeep Kaur, Harshpreet Singh).

4)” Future Trends In Fiber Optic Communication” International Conference in Electronics and communications renewable energy and IoTs:Vision 2040 at Engineers Bhavan Sector 19 A Chandigarh on 7-8 september 2019.(Happy, jagriti,kamaldeep kaur)

5) “Design Of Rectangular Microstrip Patch Antenna”International Conference in Electronics and communications renewable energy and IoTs:Vision 2040 at Engineers Bhavan Sector 19 A Chandigarh on 7-8 september 2019 (yadwinder, kamaldeep kaur) **Third prize for best paper in Technical session.**

**Job duties:**

1. Teaching the students of Electronics and Communication department for microcontroller and embedded systems, digital electronics, optical communication system and some other technical subjects.
2. Preparing the lectures, power point presentations, real time demonstration and study material for engineering students to elaborate the concepts for every academic topic.
3. Providing individual attention to weak students by arranging extra classes and tutorials and remedial instructions to the students.
4. Evaluating students’ progress through assignments, class tests and quizzes.
5. Demonstrating different experimental kits in laboratory work & software programming to students.
6. Preparation of lab equipment’s requirement list for new subject labs and laboratory resource material.
7. Performs duty as external examiner in the practical viva-voce examinations in different colleges.
8. Supervise major and minor, independent or group projects, field assignments, laboratory work or hands on training, guiding students to prepare their project and research reports systematically.
9. Assisting Head of the Department in designing the curriculum, teaching methodologies and preparing teaching materials required for courses.
10. Maintaining a date base of students as a class coordinator including details of college fee, supplementary examinations and attendance record.
11. Mentor’s a group of students and keeping theirparents/guardians informed after every mid semester examination or any other academic activity/extracurricular activity and keeping the record on record register and college web portal.
12. Guiding students in making career decisions based on their abilities, skills, interests, job opportunities.
13. Mentoring the research graduates for software and hardware applications in embedded & optical communication system related to their research projects & thesis work.
14. Regular follow up of final year students undergoing practical/hands- on training in industry.
15. Conducting the viva-voce of  six weeks/eight weeks students’ Institutional/Industrial training.
16. Organising industrial visits for students to get exposure of practical working environment.
17. Attend the Inter departmental and Intra departmental discussions and meetings.
18. Performing the different job roles assigned by the department head for different committees to manage the academic, research and co-curricular activities of the Institute.
19. Maintaining all academic records of students, course related documents and research activities being conducted under herself as per the formats provided by the National Board of Accreditation (NBA) for Tier 1(Washington Accord) Accredited Program Status.
20. Coordinating with the college’s examination department for conducting external examination and monitoring the examination activities.
21. Performs invigilation, superintendent and deputy superintendent duties as and when assigned during mid-semester examinations and final examinations by the competent authority.
22. Sets the Question Paper for external examination as per guidelines.
23. Evaluating answer sheets of external examination at the Nodal Center established in the college.
24. Performed the duty at various levels and contributes to the admission process.
25. Acting as the Convener of Techno Club of the department and guided the students to participate at various technical competitions and committee member of various clubs and societies.
26. Faculty coordinator of IIT Bombay online test for students of ECE department.
27. Conducting and participating National and International conferences, workshops, seminars and other technical events for improving technical knowledge to keep pace with modern science and technology.

**Responsibilities:**

1) Coordinator of ERP of ECE department for session July to Dec 2019 onwards.

2)Performed duty as Superintendent in July to Dec 2018 in final PTU external examination.

3) Counselling of students for promising career, assisting in paper presentation, helping in drafting international/ national papers.

4)Performed as Spoken Tutorial Coordinator for B-tech 7th semester students throught out complete session july-dec 2016

5) Organising Secretary in Proceedings of Students' conference Innovations-2012 on 5 Nov 2012

6) Technical Committee in National Conference on Innovations 2007 Exploring the latest technological trends on April 6-7, 2007

7) Editing and Printing Committee Member in National Conference on exploring the latest technological trends on 25th -26th November 2005, organized by Electronics and Electrical Engineering. Department BBSBEC, Fatehgarh Sahib.

8) Participated in rendering service for the organization of IIT Bombay-Spoken Tutorial Project (Session July-Nov 2016) and for the conduct of ONLINE Test on 3-4 Nov 2016.

9) Convener of Techno club of ECE department.

10) Maintaining the record related to academic coordinator and academic audit.